

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A device for regulating the temperature of individual sections (Zone 1, Zone 2, ... Zone n) of the interior of an aircraft [[with]] comprising:
 - a controlled mixer valve (MV) for the mixing of engine bleed air with air cooler than the engine bleed air in order to obtain pre-tempered mixed air (ML) flowing out of the mixer valve (MV);
 - a distribution line (DL) connected to the outlet of the mixer valve and also (MV) which is connected with the respective individual sections (Zone 1, Zone 2, ... Zone n) by means of respective at least two supply lines (L1, L2, ... Ln);
 - individual heating units (H1, H2, ... Hn) assigned to [[the]] respective individual sections and adapted to heat the pre-tempered mixed air flowing in the respective supply lines (Zone 1, Zone 2, ... Zone n);
 - sensors (S1, S2, ... Sn) assigned to the individual sections (Zone 1, Zone 2, ... Zone n) for sensing [[the]] respective actual temperatures (Tactual-Zone 1, Tactual-Zone 2, ... Tactual-Zone n) and in the individual sections;
 - transmitters (G1, G2, ... Gn) assigned to the individual sections for identifying [[the]] respective nominal temperatures in the individual sections (Tnominal-Zone 1, Tnominal-Zone 2, ... Tnominal-Zone n);
 - a regulator unit (ECU) operatively connected to the heating units, the sensors, the transmitters, and the mixer valve, and which controls the mixer valve (MV) dependent upon the

respective nominal temperatures ($T_{\text{nominal-Zone } 1}$, $T_{\text{nominal-Zone } 2}$, ... $T_{\text{nominal-Zone } n}$) and the respective actual temperatures ($T_{\text{actual-Zone } 1}$, $T_{\text{actual-Zone } 2}$, ... $T_{\text{actual-Zone } n}$) of the individual sections (Zone 1, Zone 2, ... Zone n) in such a way that the pre-tempered mixed air (M_L) is of a temperature which essentially corresponds to the lowest of the nominal temperatures ($T_{\text{nominal-Zone } 1}$, $T_{\text{nominal-Zone } 2}$, ... $T_{\text{nominal-Zone } n}$) of all of the individual sections (Zone 1, Zone 2, ... Zone n), the regulator unit also controlling each of and controls the heating units (H_1 , H_2 , ... H_n) assigned to [[the]] other individual sections with higher respective nominal temperatures ($T_{\text{nominal-Zone } 1}$, $T_{\text{nominal-Zone } 2}$, ... $T_{\text{nominal-Zone } n}$) corresponding according to the difference differences between the identified respective nominal temperature temperatures ($T_{\text{nominal-Zone } 1}$, $T_{\text{nominal-Zone } 2}$, ... $T_{\text{nominal-Zone } n}$) and the sensed respective actual temperature of the respective individual section temperatures ($T_{\text{actual-Zone } 1}$, $T_{\text{actual-Zone } 2}$, ... $T_{\text{actual-Zone } n}$).

2. (Currently Amended) Device in accordance with claim 1,

characterized characterised in that the heating units (H_1 , H_2 , ... H_n) in the supply lines (L_1 , L_2 , ... L_n) are preferably positioned adjacent [[close]] to entrances to the respective individual sections ($T_{\text{nominal-Zone } 1}$, $T_{\text{nominal-Zone } 2}$, ... $T_{\text{nominal-Zone } n}$).

3. (Currently Amended) Device in accordance with claim 1,

characterized characterised in that the heating units (H_1 , H_2 , ... H_n) are made from electric heating elements.

4. (Currently Amended) Device in accordance with claim 1,
characterized characterised in that the sensors (S_1, S_2, \dots, S_n) for the respective actual temperatures ($T_{actual_Zone\ 1}, T_{actual_Zone\ 2}, \dots, T_{actual_Zone\ n}$) are positioned in the individual sections ($Zone\ 1, Zone\ 2, \dots, Zone\ n$) and/or or in the supply lines (L_1, L_2, \dots, L_n) down current downstream from the heating units (H_1, H_2, \dots, H_n).

5. (Currently Amended) Device in accordance with claim 1,
characterized characterised in that the air which is cooler than the engine bleed air and which is supplied to the mixer valve (M_N) comes out of a mixing chamber (M_K).

6. (Currently Amended) Device in accordance with claim 1,
characterized characterised in that the regulator unit (ECU) takes into consideration the nominal temperatures ($T_{nominal_Zone\ 1}, T_{nominal_Zone\ 2}, \dots, T_{nominal_Zone\ n}$), the actual temperatures ($T_{actual_Zone\ 1}, T_{actual_Zone\ 2}, \dots, T_{actual_Zone\ n}$) and [[the]] characteristics of the respective individual sections ($Zone\ 1, Zone\ 2, \dots, Zone\ n$) for the control of the heating units (H_1, H_2, \dots, H_n).

7. (Currently Amended) Device in accordance with claim 1
characterized characterised in that the transmitters (G_1, G_2, \dots, G_n), the sensors (S_1, S_2, \dots, S_n) and/or and the heating units (H_1, H_2, \dots, H_n) are coupled to the regulator unit (ECU) by at least means of one or several data bus [[buses]].

8. (Currently Amended) Device in accordance with claim 1,
characterized characterised in that the regulator unit (ECU) has at least one
centralized central section temperature regulator and a decentralized decentralised heat regulator
for each heating unit (H₁, H₂, ... H_n).
9. (Currently Amended) Process for regulating the temperature of individual sections of the
interior of an aircraft comprising with the following steps:
identifying recording of the respective actual temperatures and [[the]] respective
nominal temperatures of [[in]] the individual sections;
mixing [[of]] engine bleed air and air which is cooler than the engine bleed air in
order to obtain pre-tempered mixed air at a temperature which essentially corresponds to the
lowest of the identified nominal temperatures recorded;
distributing distribution of the pre-tempered mixed air to all of the individual
sections; and
post-tempering [[of]] the mixed air distributed to the individual sections with
higher nominal temperatures than the lowest of the respective nominal temperatures, by heating
the mixed air according corresponding to the differences between the respective nominal
temperatures and the respective actual temperatures.
10. (Currently Amended) Process in accordance with claim 9, which takes into consideration
the nominal temperatures, the actual temperatures, and respective individual section
characteristics for post-tempering.

11. (New) Process in accordance with claim 9, further comprising:
setting the nominal temperatures of the individual sections manually.

12. (New) Device in accordance with claim 9,
characterized in that the nominal temperatures of the respective individual sections is set manually.